

HORSES, DOGS, BIRDS, CATTLE.



ACCIDENTS AND AILMENTS



FIRST AID



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CALENDAR 1908. LAMP LIGHTING.

JANUARY.						FEBRUARY.						
S	-	5	12	19	26	S	-	2	9	16	23	
M	-	6	13	20	27	M	-	3	10	17	24	
Tu	-	7	14	21	28	Tu	-	4	11	18	25	
W	1	8	15	22	29	W	-	5	12	19	26	
Th	2	9	16	23	30	Th	-	6	13	20	27	
F	3	10	17	24	31	F	-	7	14	21	28	
S	4	11	18	25	...	S	1	8	15	22	29	
MARCH.						APRIL.						
S	1	8	15	22	29	S	-	5	12	19	26	
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MAY.						JUNE.						
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JULY.						AUGUST.						
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SEPTEMBER.						OCTOBER.						
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NOVEMBER.						DECEMBER.						
S	1	8	15	22	29	S	-	6	13	20	27	...
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Tu	3	10	17	24	...	Tu	1	8	15	22	29	...
W	4	11	18	25	...	W	2	9	16	23	30	...
Th	5	12	19	26	...	Th	3	10	17	24	31	...
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JANUARY.					FEBRUARY.				
Sat.	4	...	5.2		Sat.	1	...	5.46	
„	11	...	5.11		„	8	...	5.57	
„	18	...	5.22		„	15	...	6.11	
„	25	...	5.33		„	22	...	6.24	
					„	29	...	6.36	
MARCH.					APRIL.				
Sat.	7	...	6.48		Sat.	4	...	7.36	
„	14	...	7.1		„	11	...	7.47	
„	21	...	7.12		„	18	...	7.59	
„	28	...	7.24		„	25	...	8.11	
MAY.					JUNE.				
Sat.	2	...	8.23		Sat.	6	...	9.10	
„	9	...	8.31		„	13	...	9.15	
„	16	...	8.44		„	20	...	9.18	
„	23	...	8.54		„	27	...	9.19	
„	30	...	9.3						

JULY.					AUGUST.				
Sat.	4	...	9.17		Sat.	1	...	8.47	
„	11	...	9.13		„	8	...	8.35	
„	18	...	9.6		„	15	...	8.21	
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					„	29	...	7.53	
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„	19	...	7.5		„	17	...	6.2	
„	26	...	6.48		„	24	...	5.47	
					„	31	...	5.34	
NOVEMBER.					DECEMBER.				
Sat.	7	...	5.22		Sat.	5	...	4.51	
„	14	...	5.11		„	12	...	4.49	
„	21	...	5.2		„	19	...	4.50	
„	28	...	4.55		„	26	...	4.54	

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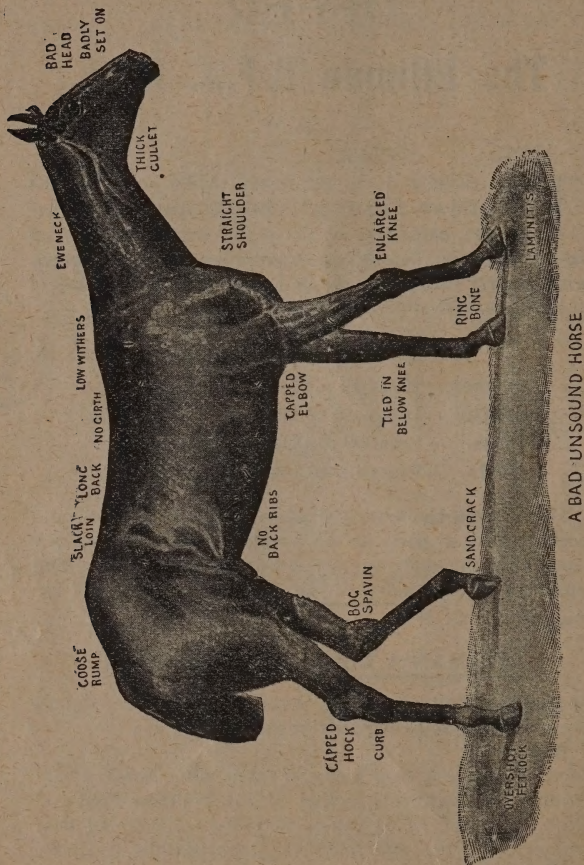
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THE USES OF ELLIMAN'S.

ELLIMAN'S EMBROCATION, owing to its antiseptic properties, can be used with advantage in the treatment of wounds, or abrasions of the skin, when diluted one part Elliman's to ten parts water (see pp. 22-23).

AS AN EMOLLIENT when hand-rubbing or massage is necessary to promote circulation in cold extremities (see p. 30, Cramp).

AS A MILD STIMULANT or rubefacient when slight swellings have to be dispersed, and in the treatment of bruises or slight sprains (see pp. 24-25).

AS A COUNTER IRRITANT when a blistering action is required, as in the treatment of chronic inflammation, thickened ligaments, old standing enlargements, bony growths. The action of Elliman's as a counter irritant is greatly increased by previously fomenting the part with hot water (see Ring-Bone, p. 61, the complete book).

THE SKIN OF HORSES, it must be borne in mind, varies in thickness and sensitiveness in the different breeds, and in the different parts of the same animal. In a thorough-bred, and well-bred horses, the skin is much thinner than it is in the common breeds.

THE SKIN OF CATTLE is much thicker and less sensitive.

THE SKIN OF THE DOG is so very sensitive, that dogs should not be treated in the same manner as other animals: also it is very absorbent, hence in that animal a larger surface than is necessary should not be treated, nor a large quantity of the Embrocation used at one time, about the body in particular. When rubbing is indicated, it should be done gently.

Read over facing inside cover, page 1.

PART I.



HORSES.

SPRAINS IN GENERAL.

SOME structures of the horse are elastic, whilst others of them are almost incapable of being strained. The majority of the ligaments and the tendons are not elastic; they are of a definite and fixed length, and, if made to stretch beyond their length, some of their fibres become ruptured and they give way in part; this is one reason of sprain. All the time the power is exerted in the direction it was intended to take, the strength of a tendon is incalculable and marvellous. When a horse leaps over a fence, as he lands there is a second of time when all the weight of both himself and his rider has to be borne on one leg.

During this time there is probably something like a ton weight on two of the principal ligaments and the tendons, allowing of course for the impetus and drop on the far side of the jump.

This may be repeated many times in a day without injury, but let the horse hesitate, or land with a twist, or on a stump that gives a turn to his leg, and the most disastrous strain may result.

The explanation is this—the tendon, or ligament, which by its office resembles a tendon, is composed of hundreds of distinct

Read over facing inside cover, page 1.

SPRAINS
IN
GENERAL.



A SECOND OF TIME
WHEN ALL THE WEIGHT
OF BOTH HIMSELF
& RIDER HAS TO BE
BOUNE ON ONE LEG.

fibrils: these are welded together on the principle of a bundle of sticks, which can bear a greater strain than a solid piece of wood can of the same weight. The ends where tendons and ligaments are attached to bones spread out, fan-like, and thus obtain a wider "insertion," as it is called. A twist or semi-circular movement, when the structure is already "taut," results in a stretching of some fibres or an injury less severe than actual rupture, but still a sprain or strain.

There is every degree of sprain, from a slight over-extension to absolute division and complete breakdown; but the principle is everywhere the same, and this is what we wish to make clear.

There is a class of sprains which to any but surgeons seems quite inexplicable. Such strains are not the result of a drop jump, or a twist, or of a treading upon a stone, nor are they caused by concussion or by any of those means usually classed as accidents, but they are due to muscular fatigue.

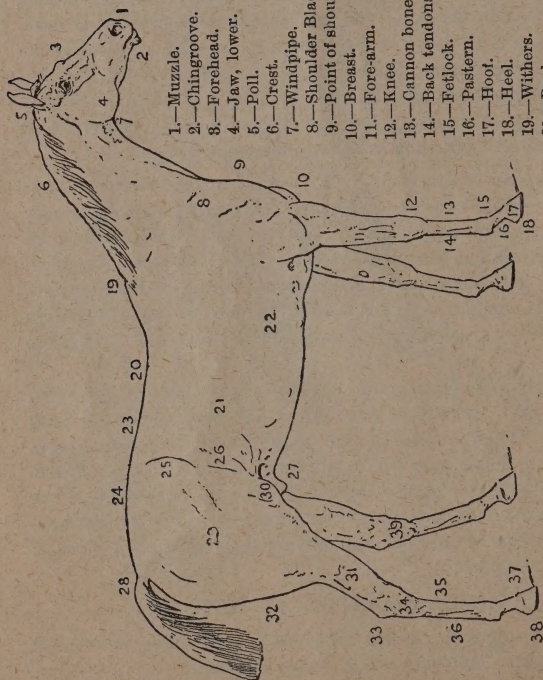
Take an example from the hunter, or the draught-horse fetching sand from the sea-shore. One may be going steadily through deep, soft ground, and the other walking through equally soft but even looser sand. A sprain occurs low down on the leg, and why? The muscles, owing to fatigue, have failed to contract, and the tendons (which are only the pulleys acted on by muscles) are allowed to remain on the stretch too long.

Tendons and ligaments, like every other part of the body, derive their nutriment from blood and their sensation from nerves. When a sprain occurs the nerves are stretched or torn, hence the great pain which is caused in severe cases. If the blood vessels are broken, an escape into the substance of the injured member causes rapid enlargement. If only stretched, these vessels are excited and an increased amount of blood is sent to the part;

INFLAMMATION IS SET UP;

the part appears swollen and feels hot. Pain is evinced on pressure; suffering follows upon exertion.

Read over facing inside cover, page 1.



POINTS OF THE HORSE

- 1.—Muzzle.
- 2.—Chingroove.
- 3.—Forehead.
- 4.—Jaw, lower.
- 5.—Poll.
- 6.—Crest.
- 7.—Windpipe.
- 8.—Shoulder Blade.
- 9.—Point of shoulder.
- 10.—Breast.
- 11.—Fore-arm.
- 12.—Knee.
- 13.—Cannon bone.
- 14.—Back tendons.
- 15.—Fetlock.
- 16.—Pastern.
- 17.—Hoof.
- 18.—Heel.
- 19.—Withers.
- 20.—Back.
- 21.—Back Ribs.
- 22.—Loin.
- 23.—Croup.
- 24.—The Hip.
- 25.—The Flank.
- 26.—The Sheath.
- 27.—Root of Dock.
- 28.—Hip joint, or round bone.
- 29.—Stifle joint.
- 30.—Second thigh or gaskin.
- 31.—The Quarters.
- 32.—The Hock.
- 33.—Curb place.
- 34.—Cannon bone.
- 35.—Back tendons.
- 36.—Coronet.
- 37.—Heel.
- 38.—Spavin, position of.
- 39.—Back Ribs.

LAMENESS, HEAT, PAIN, AND SWELLING

are the chief indications of sprain. These symptoms vary in intensity according to the situation of the structure affected and the extent of the mischief.

By cultivating the habit of feeling the horse's legs in health, the hand will know directly it comes across a sprain, without causing the sufferer to wince under pressure. A sprain having occurred, the process adopted by nature to cure it is by bringing to the part a largely increased supply of blood, from the elements of which new material is selected to repair the breach. To understand how Elliman's acts, it is necessary to consider the structure of the skin, through whose agency every external remedy must operate.

The outer layer is insensitive, and consists of piled-up layers or thin scales which from time to time peel off. Under this are other layers of true skin, and among them there exists a network of blood vessels and nerves. It is through the latter that Elliman's exercises its far-reaching effect. The nerves of the skin terminate in a form resembling numerous minute cauliflowers. These all communicate with the larger trunks which govern the seat of inflammation. When injured the small vessels are paralysed more or less, their calibre not being regulated, on account of injury sustained by the nerves which accompany them, and which in health compress or relax to admit less or more blood. In sprain there is an engorgement of the parts affected.

ELLIMAN'S,

by acting on the peripheral nerves (the cauliflower-like extremities), restores them to their proper functions and so acts upon the blood supply; the injured part is no longer flooded with blood of which it can make no use; the source of inflammation is controlled; the blood already in the part is put to work, and recuperative action begins at once.

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The absorbents are thus roused to activity, whilst the broken-down tissue is dissolved and carried away.

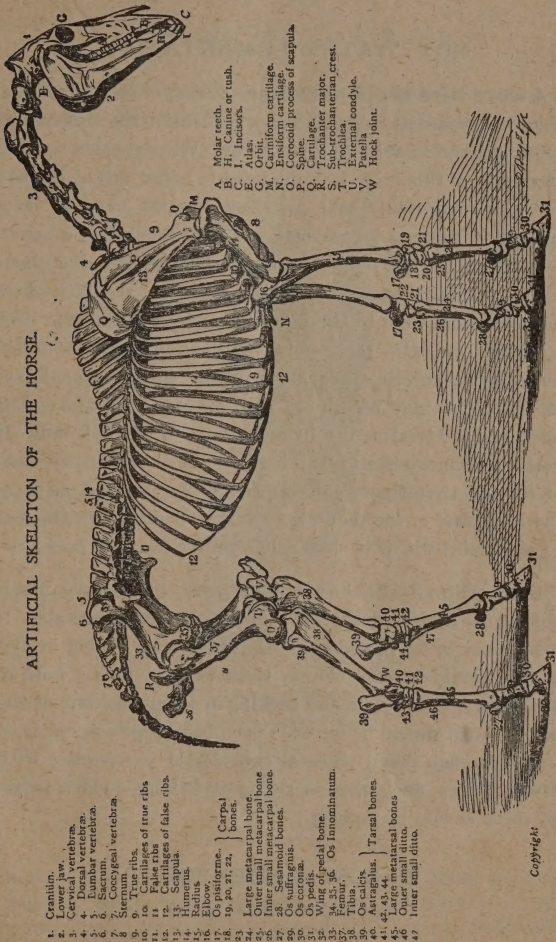
In the next place the Elliman's draws to the surface the inflammation, which in a joint or tendon would continue to do irreparable mischief.

SPRAINED SHOULDER.

This injury is generally the result of turning the animal suddenly. Colts sometimes sprain the shoulder at grass when galloping about and making sharp and sudden turns. Hunters are the most liable to it, but harness horses get shoulder sprains in turning on uneven ground which they cannot see. Young farm horses, when first put to plough, are frequent subjects of shoulder lameness until they become accustomed to inequalities of ridge and furrow. Bruised shoulder is often mistaken for sprain, and may be caused by the horse knocking against a door or gate post when it is startled, or when several horses are squeezing through an opening at the same time.

Treatment.—Ascertain the nature and extent of the trouble as far as possible by manipulating the parts, lifting the limb, *i.e.*, press all round with the knuckle, move the leg backwards and forwards, and observe the position in which the animal most readily flinches. With shoulder troubles it is always a beneficial plan to begin with a good fomentation of hot water twice or three times daily; this eases pain and prepares the way for the Elliman's. Shoulder lamenesses differ from those lower down in either limbs, inasmuch as the muscles are nearly always affected, while there are no muscles below the knee and hock.

ARTIFICIAL SKELETON OF THE HORSE.



Copyright.

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HOT WATER FOMENTATION.

A word here about hot water. This is often used too hot, which may cause bad blemishes, not to mention the unnecessary suffering given to animals by such use. Whenever hot water is referred to in this book, it is intended to mean just as hot as a man can comfortably bear his *elbow* in; the hand of those engaged in manual labour being usually much less sensitive than the skin of the horse. After fomenting for half an hour rub in Elliman's with both hands, changing the attitude of the horse from time to time, flexing and extending the limb by turns. An extra piece of rug or flannel may be stitched inside the rug covering the lame shoulder. On subsequent days the Elliman's may be diluted with an equal amount of soft water, and the treatment continued until the horse is well. If there is no improvement it will be due to some other cause than sprain, and a veterinary surgeon should be consulted, as there may be disease of the shoulder. Navicular disease in the foot is a complaint which is often mistaken for shoulder lameness.

Prevention.—The chief causes of injury have been enumerated and the reader will see that some of them are preventable. If horses must be led in and out of the stable with winker-bridles on, they should be led slowly by the attendant taking hold of both sides of the bridle and backing in or out in front of the horse. Gates should be set wide open before colts are allowed to rush through them. Special care should be exercised with nervous horses, and, whether riding or driving, sudden twists and turns should be avoided.

ELBOW LAMENESS.

(See Capped Elbow, p. 25.)

Read offer facing inside cover, page 1.

INJURIES TO THE KNEE.

The double row of small knee-bones, with the large ones above and below, all go to make up the joint. In the



FORE VIEW OF THE
CARPAL BONES, COM-
MONLY CALLED THE
KNEE.

- 2. Lower extremity of
radius.
- 3. Ulna, lower extremity
of.
- 4. Os pisiforme.
- 5. —cuneiforme.
- 6. —lunare.
- 7. —scaphoides.
- 8. —unciforme.
- 9. —magnum.
- 10. Large metacarpal bone.
- 11. Small metacarpal bone.

large number of bones its safety consists; these are not a cause of danger, but serve to distribute concussion, and so it comes about that the most complicated joint in the body is

Read offer facing inside cover, page 1.

least often the seat of lameness, save for one particular cause, as follows :—

SPRAIN OF THE KNEE.

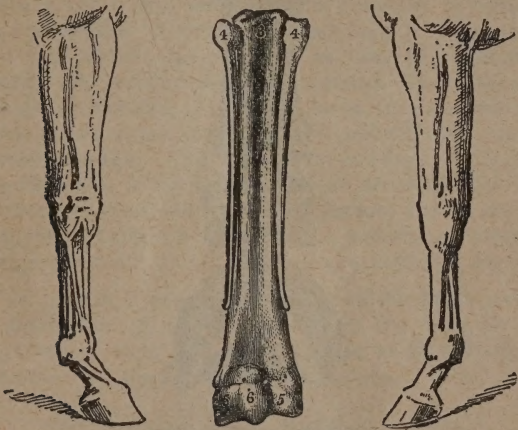
It is difficult indeed to define which of the numerous ligaments is affected when this joint suffers, but if we can ascertain



The dotted lines show the direction in which the sprained tendons and ligaments bulge and alter the shape of the knee.

on which side the greatest amount of tenderness exists, we are able to apply a remedy with more certainty, and need not cover so much ground. Of one thing we may be sure, no matter what structures are involved, and that is this, that Elliman's is the remedy. Knee lameness generally results from a fall, but sometimes a growth into or upon the joint may cause it. The lameness is more likely to be caused by a fall than by a high splint creeping up from below. Such a thing, however, may occur. The other cause of knee lameness is from within. (*See RHEUMATISM, page 29.*) Between the knee and foot occur the largest number of sprains and other injuries demanding the use of Elliman's. The powerful binding ligaments on the knee, and the tendons passing to the

side and back of knee or leg, and the corresponding structures in the hind limb, that is, of course, below the hock, are frequent subjects of sprain. Those passing towards the front of the limb are the extensors, and are seldom sprained in comparison with the back tendons—as the ligaments, as well as tendons, are commonly called. The two back tendons are called *perforans* and *perforatus*, because at the back of the fetlock one opens and



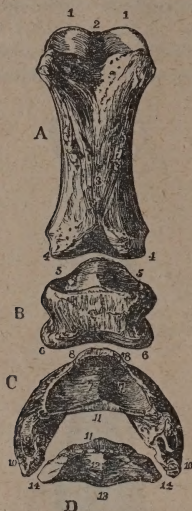
THE CENTRE BLOCK SHOWS BACK VIEW OF THE LARGE AND SMALL METACARPAL BONES.

2. Metacarpus magnus.
3. The surfaces above articulate with the lower carpal bones.
4. 4. External and internal small metacarpal bones.
5. 5. Condylloid surfaces articulating with corresponding ones on the upper extremity of the os suffraginis.
6. Eminence articulating with a corresponding depression on the upper extremity of the os suffraginis.

the other passes through it. The *perforatus* tendon, which is the anterior one, is joined two or three inches below and behind the knee-joint by a very powerful ligament known as the check-ligament—the presence of this ligament explains the fact why a horse can go to sleep standing. The suspensory ligament is a little lower down. The fetlock, like the knee, is bound down with ligamentous bands of great strength; these are seldom the seat of sprain, but the sheaths of the tendons which pass over the fetlock joint are often in need of treatment.

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Below the fetlock are the continuations of the tendons and the ligaments which have their origin at or above the knee. They descend to the bone of the foot, and are inserted into the



POSTERIOR VIEW OF PHALANGES.

A. Os suffraginis.

1. 1. Surfaces articulating with the lower extremity of the large metacarpal bone.
2. 2. Groove.
3. 3. Rough surface for the implantation of ligaments.
4. 4. Inferior extremity articulating with

B. Os coronæ.

5. 5. Superior articular surfaces.
6. 6. Inferior articular surfaces.

C. Os pedis.

7. 7. Articular surfaces.
8. 8. Coronal process.
9. 9. Scutiform processes.
10. 10. Retrossal processes.
11. 11. Surface articulating with a corresponding one on the navicular bone. (12.)

D. Os naviculare.

12. 12. Surface articulating with the os coronæ.
13. 13. Surface over which the flexor pedis perforans tendon glides.
14. 14. Points attached to the pedal bone by ligaments.

roughened eminences which give this form of attachment so much strength, but, as pointed out in *SPRAINS IN GENERAL* (page 5), the spreading makes a twist or sudden turn, the most likely cause of sprain.

Read offer facing inside cover, page 1.

In reading the directions for treatment that follow, it should be borne in mind that, in case of

A VERY SEVERE SPRAIN WITH MUCH HEAT,
it is advisable to commence by letting a stream of cold water play on the limb for ten minutes three or more times a day, until the inflammatory symptoms have subsided. A cold-water bandage may be used, and this should be changed as may be necessary. When the inflammation is reduced, the Elliman's should be rubbed in with the hand for ten minutes three times a day, and the limb bound with a cold-water bandage. The cold-water bandage will cause the Elliman's to act as a very slight blister, which will reduce the thickening or enlargement; after a day or two, when a slight scurf is raised, substitute a layer of cotton wool with a tight bandage over it for the wet one.

In case of a severe sprain where the horse shows a disposition to walk on the toe of the lame limb, a high-heeled shoe may be put on so as to remove all tension from the ligaments and tendons.

SPRAIN OF THE BACK TENDONS.

This is one of the commonest of the causes of lameness in horses, and is most frequent in hunters, though common enough to all classes. The concussion of landing over a jump puts the strain on, which gives rise to injury of these tendons. Race-horses also break down in the back tendons, even though racing on the flat, but in their case it is from fatigue of muscle in the majority of instances. The same may be said of the hack and the harness horse; horses are always liable to make an unlucky stumble, or, treading upon a stone, they put an unequal and severe strain on these structures. It is important to examine the injury as soon as possible after the accident to ascertain its extent, before effusion of fluid and swelling deceive the eye and

hand. In a severe strain, some say it is a good plan to give a dose of physic to keep down inflammation, and reduce the tendency to extreme swelling. The limb should be bathed with warm water (as directed on page 12). Elliman's should be rubbed in for a quarter of an hour, and then the part padded with cotton wool, and lastly bandaged with ordinary woollen material, as tightly as possible.

There is much art in this matter of bandaging, especially in the case of lameness, the result of sprained tendons. Judicious pressure will help the Elliman's in its work of absorbing inflammatory products, and reduce the thickened tendon.

SPRAINED FETLOCK.

Foment with warm water (see page 12), and apply Elliman's with gentle friction for several minutes. Wrap the joint in cotton-wool upwards from the heel, and apply a tight bandage over all. Remove and repeat daily.

SPRAIN OF THE CHECK LIGAMENT.

This is an even more disastrous accident than sprung back-tendons, and some time must elapse before the animal can return to work.

Causes.—The same as those mentioned in connection with back tendons (see page 17).

Treatment.—Before the advantages of Elliman's were fully known, it was the custom to fire deeply and then turn out the horse to grass for a whole year or more. Now, no such cruel method is necessary, and recovery may be expected by repeated applications of Elliman's, the number and frequency of them being left to the judgment of the owner, who will be guided by the forming of the scurf and the declining of the swelling. The support of cotton wool and bandages is here also recommended.

Read offer facing inside cover, page 1.

SPRAINED PASTERNS.

When the small ligaments and tendons passing down over the front of this part are strained, it is too often assumed that a ringbone is forming, but compression under the finger should be the test of this. The application of Elliman's may be reckoned on with certainty to effect a complete cure of any sprain to which these structures are liable. Frequent rubbings and a few days' rest are all that is necessary.

SPRAIN OF THE BACK.

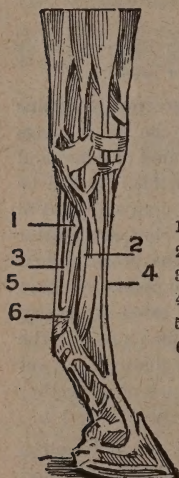
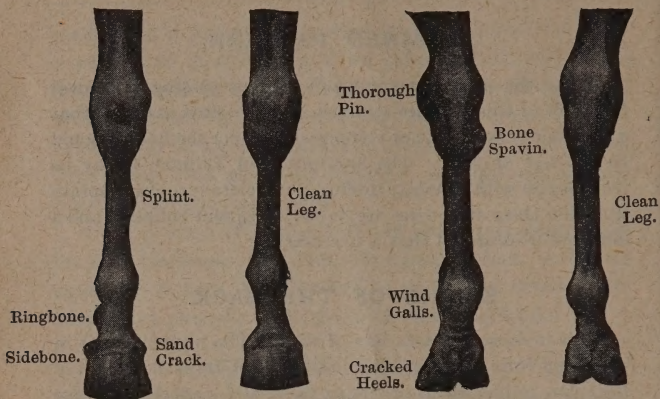
This is caused in a variety of ways. The hunter gets it in taking off from sticky ground, and the hack from the weight of his rider, rolling about or sitting back, and neglecting to ease the horse by changing his own position, or by a horse getting cast in his stable.

The draught horse's back is sprained in backing, or by stopping a load down hill without skid-pan or break.

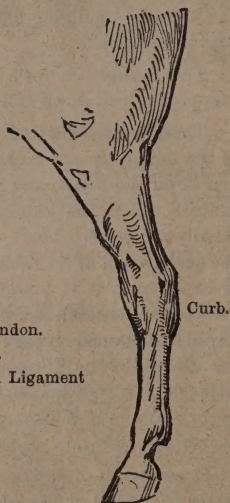
There are two distinct sets of muscles concerned in strains of the loins—those which lie upon the top of the spinal wings and cover the bones, and those under the column of bones and against which the kidneys are embedded in fat. It will be readily understood how a remedy such as Elliman's applied to the surface will affect those muscles on the top, but, as a matter of experience, it is found that a sprain on the psoae or loin muscles underneath is almost as quickly acted upon. We have already explained on page 9, par. 3, how deep-seated structures are affected by the Elliman's. A person may suffer a pain in the back which is well known to arise from kidney disturbance, yet the rubbing in of Elliman's is found to diminish or altogether banish the pain in a short time, owing to its diuretic action.

Prevention of sprains to the loins is to be looked for in the better balancing of two-wheeled carts by reducing weight, and the proper adjustment of the load and of the breeching.

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- 1.—Check Ligament.
- 2.—Splint Bone.
- 3.—Perforans Tendon.
- 4.—Extensor Pedis Tendon.
- 5.—Perforatus Tendon.
- 6.—Superior Sesamoid Ligament or Suspensory.



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SPRAINED HOCK.

If one joint in the body is of more importance than another it is the hock. Like the knee, it has a double row of small bones, but comparatively there is less movement between them. They are united by a number of small ligaments, and these are liable to suffer sprain in jumping, galloping, or drawing in harness. What is called a "sprung" hock is a very serious matter, and all thought of working the horse must be abandoned for a long time. It is an injury in which many of the smaller ligaments are affected, and inflammation of the covering of the bones is also present.

A sprung hock is a case for a veterinary surgeon. The hock is subject to minor strains in which only one or two ligaments are involved, and here Elliman's is the remedy. Additional heat and tenderness may be discovered on one side of the joint, perhaps, and a few good rubbings with the Elliman's, and rest, may be all that is required. Below the hock all the parts correspond to the front leg already described. The treatment is the same.

CURB

Is a sprain of the calcaneo-cuboid ligament, causing an enlargement at the back and lower part of the hock, from three to four inches below the point (see illustration, p. 20).

Young horses and cow-hocked horses (see illustration, page 43 of the Complete E.F.A. Book) are most liable to throw curb; it is caused by sudden or violent motion, such as taking a great leap, or a severe gallop through deep ground.

Treatment.—A dose of physic is in most cases desirable. The inflammation should be reduced by hot fomentations, or by repeated application of a cold evaporating lotion of equal parts of spirit and vinegar; this having been accomplished, the hair should be clipped off and the part well rubbed cross-wise with Elliman's every day until it becomes too sore for it to be continued; a thick scurf will rise, and when that comes fairly off, the Elliman's should, if necessary, be again applied as before. A high-heeled shoe will take off strain and thus help to recovery.

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BROKEN KNEES.

The skin of the knee is seldom broken by any other means than by a fall. The small bones are occasionally broken, and the knee breaks open at the back. A more frequent difficulty is the rupture of the casing (capsular ligament) which encloses the joint oil; this may occur at the time of the fall, or subsequently, when the swelling bursts some portion of it rendered weak. The open wound is in a condition to invite the invasion of injurious organisms (bacteria). Attention is particularly invited to the above explanation in order that the reader may understand the scientific reason for using Elliman's.

Treatment.—It is essential that the wound should be cleared of grit or other foreign matter. At this stage germs are too often introduced by using ditch or other dirty water. An efficient disinfectant should be employed; for this purpose some Elliman's may be mixed in the proportion of a wine-glass to a quart of water. The knee should be bent while bathing it, as grit is thus best dislodged. Poultices were much used formerly, but the most advanced veterinary surgeons are in favour of antiseptic treatment throughout, depending on Elliman's to draw out the inflammation by repeated applications on or around the part. Any swelling that follows will then be under the skin, and act as a support to the capsular ligament, and diminish the chances of rupture and escape of joint oil. There is, too, a scientific reason for applying the Elliman's to the wound itself—not in the undiluted state, but added to ten times its volume of soft water. Elliman's has been proved to be a germicide or destroyer of injurious organisms.

When the skin is not cut, but bruised, the hair shaved off, with oozing of blood, wash the wound clean, sop it with Elliman's; repeat twice daily.

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When the skin is cut, wash the wound clean, sop it with a mixture of one part of Elliman's to ten parts of water to the bottom of the wound.

The edges of the wound should be brought together as nearly as possible by means of a light, soft bandage; this dressing should not be interfered with for three or four days if the case progresses favourably, but if the leg swells and shows signs of inflammation, examine the wound, and if suppurating, wash lightly, and dress with a dilute mixture of the Elliman's (one part of Elliman's to ten parts of water).

The gap in a broken knee has to be filled up by the process known as granulation, and this process is accelerated by the occasional touching over of the surface with the diluted Elliman's. When the space is filled up with healthy-looking red granules the Elliman's should be discontinued and the wound allowed to dry without any bandage or covering.

CONTUSED FETLOCK.

When a horse falls and breaks his knees, he frequently also skins the front of the fetlock joint, bruising the tissues beneath at the same time. The treatment for this is exactly the same as for broken knee (see above).

TIMBER LEAP.

Under this name is known the enlargement of the bursa or secreting membrane which is found on the point of the fetlock, which also gets cut when a horse falls (see contused fetlock above). If taken in hand early, Elliman's will make a speedy cure. This enlargement always arises from a bruise. In hunters it is often caused by striking the top rail of a fence, and hence its name.

Impatient horses sometimes strike the manger and bring about the enlargement in that way. The amount of Elliman's used is not so important as the friction or massage employed in bringing about a healthy action in the secretion while dispersing the abnormal fluid.

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OTHER INJURIES TO JOINTS, TENDONS, LIGAMENTS, BRUISES, &c.

Besides the frequent lamenesses brought about by strains, there are many injuries from blows, which call for remark as being amenable to treatment by Elliman's. External violence causes inflammation, not by undue elongation of the parts affected, as described in speaking of sprains, but by sudden compression. If the force of the blow is sufficient, death of the part follows, as in the treads which heavy horses inflict upon one another, and upon themselves, in turning in harness. Nature sets about getting rid of the dead tissue, and, in surgical language, "sloughs" it. Dressing with Elliman's will here be useful. Injuries less serious also result in inflammation (see p. 35). Kicks and blows on the knee, hock, fetlock, stifle, the pastern, shin, back tendons, and about the head and body, are best treated by fomentation, followed by rubbing with Elliman's when the skin is not broken, but when the skin is broken, after the fomentation the Elliman's should be *dabbed* on with a piece of clean cotton wool, lint, or tow.

WIND GALLS.

Joint oil or synovia—previously referred to in connection with broken knees,—capped elbow and hock,—is an oil provided at all points where friction might arise, and is to the animal what machine oil is to the engine. The bursæ or oil sacs which, in health, exude sufficient for the purpose of making the parts work smoothly, become irritated under stress of work or unhealthy conditions and fill up the joint with a fluid which is not true synovia.

This is the state of the bursæ just above the fetlocks in a horse which is commonly called "used," or showing signs of wear.

These enlargements were supposed to contain air; hence the name. They are found chiefly about the fetlock joints, the back tendons, the knees and the hocks.

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Treatment.—When they are not consolidated by time a cure may be looked for by the well rubbing in of Elliman's and by proper bandaging. A thick layer of cotton wool should be wrapped around the legs over the wind galls, and in bandaging two or three folds should be made round it, each drawn a little tighter than the last. If a rest can be obtained, it would be advisable. Such enlargements are not often the cause of lameness. Very severe work may start them again. The horse should be shod with shoes slightly raised at the heels.

CAPPED ELBOW.

This very unsightly injury may be caused by the heel of the shoe when lying down. Horses which have a habit of scraping away their bedding may also bring about this disfigurement, by pressure of the elbow on the hard floor.

Treatment.—No remedy is better than Elliman's if the case be taken in time.

The swelling at first is composed entirely of fluid, and the Elliman's will greatly excite its absorption. It should be employed with plenty of friction and kneading with the fingers. A pad should be used to prevent recurrence of the injury.

Prevention.—A liberal supply of bedding. See that the heels of the shoes are not too long.

CAPPED HOCK.

The cause of capped hock is the same as capped elbow and timber leap, namely, an engorgement of the oil sac or bursa, which nature provides to prevent friction.

All these swellings become permanently hardened and immovable (without a surgical operation), unless promptly taken in hand while in the soft or fluid state.

Treatment.—What has been said about the elbow applies equally to the hock.

Prevention.—See that the floor of the stable is in good condition and is not slippery. A good bedding of moss litter is preferable for horses liable to cap their hocks.

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SPLINTS

cause lameness when first forming. They are induced by concussion, by blows, and by hereditary predisposition.

They may be very large and of little consequence, or so small that only an expert can find them, and yet they may make a horse useless for a time.

To discover the seat of lameness the limb should be lifted up, and carefully pressed with the fingers from just below the knee to the end of the splint-bone above the fetlock.

The horse will generally flinch when pressed on the spot.

THE NATURE OF A SPLINT.

The reader should understand that all bones are covered with a membrane or skin called periosteum. The bones grow and maintain themselves when adult by the nourishment conveyed to them by this covering membrane, which is thickly interspersed with blood vessels.

When this periosteum is injured, either by concussion or external violence, inflammation is set up. Inflammation where the cannon and splint bones join is the commencement of what is called a splint. The blood vessels bring too much bony material to the spot and leave a deposit there.

Treatment.—Elliman's should be well rubbed on and around the part every day until it is too sore for the treatment to be continued, when it must be left alone until the scurf raised is removed and the soreness has subsided, when the rubbing as before may be repeated if necessary.

If it has been allowed to become hardened, it will take time to excite absorption, but this can be done with perseverance.

Prevention.—Careful usage and not putting horses to hard work too young.

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SPAVIN.

A tendency to spavin is undoubtedly hereditary, but the exciting or actual cause is some strain put upon the covering membrane of the small bones of the hock (see NATURE OF A SPLINT, p. 26).

Inflammation is set up, a bony deposit takes place between the bones, their sphere of motion is restricted, and lameness, more or less, results.

Treatment.—What has been said of splint applies with even greater force to spavin. Elliman's should be well rubbed on and around the part every day until it is too sore to be continued, when it must be left alone until the scurf raised is removed and the soreness has subsided, when the rubbing as before may be repeated if necessary.

BOG SPAVIN OR BLOOD SPAVIN.

This term is given to an enlargement of the hock, caused by strain. There is a large vein which passes over the spavin place. It is very close to the surface and becomes distended or varicose.

Treatment.—Elliman's should be well rubbed on and around the part every day until it is too sore to be continued, when it must be left alone until the scurf raised is removed and the soreness has subsided, when the rubbing as before may be repeated if necessary.

THOROUGHPIN.

Is a distension of the hock through which the fluid bulges between the os calcis. This shows first on one side and then on the other, when the hock is pressed by the finger and thumb.

Treatment.—Elliman's should be well rubbed on and around the part every day until it is too sore to be continued, when it must be left alone until the scurf raised is removed, and the soreness has subsided, when the rubbing as before may be repeated if necessary.

It is desirable to apply a Thoroughpin Truss, which should be kept on whilst the horse is in the stable. A high-heeled shoe is also an advantage.

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HAIR.

Mange and such-like diseases cause a falling off of hair, so does severe blistering; but they do not kill or destroy the bulbs or roots of the hair, and, the cause being removed, the hair will grow again.

Loss of hair is unsightly. There are many things which are said to promote growth of hair, but we think none better than Elliman's lightly sponged every other day over the part devoid of hair.

If from accident, or from the use of caustics, or other cause, the roots or bulbs have been removed or destroyed, hair will not again grow on the part.

SADDLE AND HARNESS GALLS.

(SORE SHOULDERS AND BACKS.)

The cause is obvious. Saddlery and harness, and collars in particular, should be more frequently overhauled. Some skins are, however, so prone to gall that no one is to blame. The galls inflicted by saddlery and harness differ so much in intensity that the same treatment is not applicable to all. The least lump or swelling should be dispersed without delay by gentle friction with Elliman's, but where the skin is broken or raw, the Elliman's should be diluted—one in five of water—and dabbed on the part with a piece of clean sponge or cotton wool, once or twice a day until healed. Neglected, it may run on to an abscess.

ABSCESS.

The Elliman's will still be the best remedy, because its application will save time by assisting nature to bring the matter to a point. This treatment applies to all abscesses, no matter from what cause. When the finger is able to detect a thin place, the matter is said to "point," and the time has arrived to lance it and let out the contents.

A pledget of tow dipped in the Elliman's should then be inserted into the wound for one night, or it may refill; upon a few inches around the orifice the skin should receive a daily

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application, to prevent the formation of more matter. No further treatment will be required if the wound is kept clean.

SITFASTS.

Cause.—Pressure, long continued or momentarily severe. The injury is of such a nature that repair is impossible (see TREADS, p. 33). A portion of skin, and possibly some deeper structure, is killed, and has to be separated from the living substance.

Treatment.—Readers with medical knowledge will be the first to understand how the use of Elliman's will facilitate the separation of the sitfast. To excite activity in the immediate neighbourhood is to help nature to detach the dead portion.

As the edges curl up, a little Elliman's may be painted under them with a fine brush. When the sitfast comes away the rest may be left to nature.

FISTULOUS WITHERS.

Instead of a gall, an abscess or a sitfast forms as the result of saddle pressure, and the damage is sometimes deep seated. The fibrous tissues beneath the skin or upon the backbone are so injured that a fistula is established, in which case a veterinary surgeon should be employed. By early use of Elliman's many a fistulous wound is prevented, and the *importance* of attention to saddle-galls cannot be too much insisted on.

RHEUMATISM.

The causes of rheumatism in horses are thought to be the same as in man. That damp and ill-drained stables cause rheumatism is easily enough proved by the statistics of the great omnibus and other studs, whose horses suffer from the disease in some situations and not in others, although they have the same rations and similar work.

Symptoms.—Cramp and lameness are the two prominent ones, but the distinguishing feature is the suddenness of the

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attack, no other cause but rheumatism being assignable for the extraordinary manner in which the pain leaves one joint or limb and attacks another. There is often swelling and tenderness to guide one, but these symptoms are not invariably present.

Treatment.—In Elliman's we have an excellent remedy. For an affected joint the Elliman's should be poured into the palm of each hand and applied with a gentle friction and chafing movement for ten minutes at a time, repeating the operation twice or three times a day until the joint is cured. If the weather is cold a little of the Elliman's may, after rubbing, be applied on a flannel bandage, the Elliman's being very lightly sprinkled upon the flannel; care being taken that the stable is kept at moderate temperature. Gentle exercise is recommended to prevent the joint from becoming stiff, and precaution taken that no chill is contracted.

Very bad cases should have internal treatment as well. Two-drachm doses of salicylate of soda in a gill or quarter-pint of water, night and morning; or potassium bicarbonate two-drachm doses night and morning, with the food or in the drinking water.

CRAMP,

when not rheumatic in its origin, is caused by an unequal distribution of nerve force or interrupted circulation of the blood. The symptoms are loss of power. The animal tries to use his muscles as a man does when his leg or arm has "gone to sleep."

Treatment.—If the horse has remained on one side and got cramp in that way, the first thing to do is to roll him over on to the other. If cramp arises from the plugging of a large blood vessel, the symptoms can be alleviated by the Elliman's, but in any other case it is an absolute specific. A large surface should be included when rubbing for this affection. All the muscles of the limb in the horse unable to rise through cramp of the lumbar muscles (that is along the whole length of the back, from the withers to the tail) should be well rubbed with the Elliman's.

Prevention.—Horses known to be the subjects of cramp should have extra bedding and a loose box.

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CUTS.

Simple wounds, in which there is no reason to suspect the presence of grit, or foreign matter of any other kind, are best treated by dabbing the part with Elliman's, diluted with an equal quantity of water.

A clean incised wound may require some mechanical means of keeping the edges together. Any serious wound should have the services of a veterinary surgeon; but, failing to obtain professional assistance, the edges may be brought together by stout pins filed on three sides to make them penetrate the tough skin of the horse. Around these tow or thread may be wound in the form of a figure 8.

A wound sufficiently large to require sutures or pins will not be likely to heal by adhesion, and it is well to dilute the Elliman's as recommended at pp. 22 and 23 for "Broken Knees," so as to keep out germs while the slower process of granulation fills up the wound and unites the skin by a scar.

TORN AND LACERATED WOUNDS.

These can never heal by the simple process of adhesion; they must be repaired in another way. A veterinary surgeon should be employed.

A light dressing of Elliman's will be good treatment until skilled aid can be obtained. It has already been stated that the Elliman's is a germicide, and prevents the invasion of microbes. If assistance is unattainable, then the directions given in connection with incised wounds (see above) should be carried out as far as possible, bringing the edges of the skin as nearly together as may be, but avoiding any strain on the soft parts. Allowance should be made for the swelling that will be sure to follow. Stitches too tight will tear out. In hot countries, where flies abound, the wound should be covered lightly, and shade secured. A dark stable is preferable, inasmuch as flies will not stay in it.

PUNCTURED WOUNDS.

A small punctured wound is more to be feared than a large incised one. Although it will often heal by first intention, it is

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never safe to let it. All may appear to be well, and months afterwards a swelling come up at or near the spot, an abscess (see p. 28) form, or worse still, a fistula (see FISTULA, p. 29). The nail or other object which caused the puncture was probably rusty or dirty, and conveyed some deleterious matter.

Treatment.—Enlarge the orifice. Get drainage. Dip some tow or a strand of rope in Elliman's and push it into the wound as far as it will go. Leave it in till next day. Renew it two or three times until a healthy discharge takes place. The colour should be pale yellow, and the consistence about that of cream. No fear of results need be entertained after this treatment, and the wound may be allowed to heal up.

CRACKED OR SORE HEELS.

The heels are subject to chaps and cracks in winter, as the result of chills, from their being allowed to remain wet, and from the irritating effects of mud. The dust of summer is also known to have the same effect, especially of certain soils.

Treatment.—Cleanse thoroughly with warm water and yellow, not soft, soap, and wipe dry. Dust the wound with equal parts of dried alum and oxide of zinc, or use oxide of zinc ointment. Rub in the Elliman's round the coronet and in front of the pastern. The application of Elliman's acts as a derivative, in this case, diverting blood from the inflamed part.

MALLENDERS AND SALLENDERS.

Whenever a scurviness, followed by a crack, appears behind the knee, it is called a mallender. A similar condition in front of the hock is known as a sallender. These two diseases bear a relation to cracked heels. Where the skin is required to bend frequently as in these places, a special provision is made to prevent friction. Under the skin are found little glands whose office it is to secrete an unctuous material resembling vaseline. These glands fulfil their function in all ordinary times, but are liable to become blocked up by irritating dust, or inflamed by frost and snow.

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Treatment.—In general the treatment is the same as for cracked heels (see p. 32), but often a little strong mercurial ointment rubbed upon them is an effectual remedy.

TREADS

are injuries to the parts immediately above the hoof, and are caused by placing one foot on the other, or else by the tread of another horse. They most frequently happen to heavy horses working in pairs, and the accident occurs in turning.

The calkin of the shoe being generally responsible, the injury is so severe that the part is literally killed on the spot. A piece of dead tissue has to detach itself, or rather, we should say, be cast off, before healing can take place (see *SITFASTS*, p. 29).

Treatment.—The broken-down part being removed, the Elliman's should be dabbed on the place every night and morning.

OVER-REACHES.

Most common in hunters when the going is heavy; also young horses and others, when overpaced, are liable to strike the heel of the front foot with the toe of the hind foot. The injury created is almost invariably just between hair and hoof; an offensive discharge is soon set up, and the horse is likely to be lame next day until the soreness works off by re-opening the wound and giving vent to the discharge.

Treatment.—Elliman's, one in four of water, should be dabbed on and allowed to soak in, then apply lint and a tight bandage over all.

Prevention.—Pay attention to the shoeing.

BRUSHING.

The habit of brushing is either due to malformation, such as horses long in the loins, which causes weakness, turned out toes, or to fatigue; also young horses are liable to "brush" from want of condition. It also happens through shoeing too "full" on the inside, or a clench may work up and do the mischief. Sufficient importance is not always attached to this minor accident until a permanent enlargement makes it impossible for the animal to travel without brushing.

Treatment.—Dab the part with Elliman's, rub it in round the joint, put on a dry bandage, commencing at the foot.

Prevention.—Feather-edged shoes and frequent examination of them to see that there is no overlapping and that the clenches are kept down. A so-called “knocked up” shoe is best. Short journeys only should be taken by young horses, and they should be bandaged at home as long as the tendency to brush remains. Young horses or confirmed “brushers” should have “brushing boots” on whilst at work.

SPEEDY CUTTING.

Defective action is the common cause, and, as the name implies, it occurs only in the fast paces.

The lower and inside border of the knee is the part struck by the shoe of the opposite foot, or in some horses by the hoof itself.

Treatment.—Dab on Elliman's and rub it all round, to draw away the swelling and prevent a lump from forming.

Prevention.—In the case of young animals, they sometimes grow out of it with careful drivers; but there is practically no means of prevention except by wearing a boot or protective substance.

A speedy-cutter is so dangerous an animal that it is well to find him a job at his own pace. Some speedy-cutters may be made to do useful work, but at a fast pace they are always liable to come down.

THORNS AND OTHER FOREIGN BODIES.

When a thorn, splinter, or other substance pierces the skin it is not always observed at the time, but lameness and swelling of a tendon or other structure often takes place next day.

In the case of hunters, in particular, the attendant should keep the possibility of thorns specially in mind; their presence is often mistaken for sprain. The greater tenderness over some small spot should excite suspicion, and cause a search to be made.

Treatment.—Close clip the affected part or even go to the extent of shaving it, in order to find the foreign body. Enlarge the opening with a lancet and extract the offender. Apply the Elliman's to the wound as well as all round it, and, if it is not distinctly relieved next day, put on poultices to induce the remainder of the thorn to come out. If all is got out at the first attempt it will need no other treatment than the Elliman's.

MUDFEVER.

This disease is of the nature of erythema, and should be treated with internal remedies as well as applications to the skin.

Cooling doses of Epsom salts should be given, say $\frac{1}{4}$ -lb. in a mash at night for two or three nights; and, for a lotion, 1 fluid ounce of Goulard's extract, mixed in a pint of linseed oil, should be used.

Prevention.—On returning to the stable wash off the dirt, wipe dry, and let the legs be rubbed with a little Elliman's.

GREASE.

Coarse, hairy-legged horses are very liable to this disease of the skin of the heels and lower part of the back of the legs.

Constitutional remedies, as well as outside agents, need to be employed.

Sulphates of zinc and of copper dissolved in water make a very good lotion; half an ounce of either sulphate of zinc or sulphate of copper, dissolved in a pint of water, may be applied with a sponge once or twice a day. Small doses, one or two drachms of the sulphate of copper, given in the form of a ball for several nights, will be perfectly safe and beneficial.

Prevention.—Keep the legs as dry as possible and never wash them. Brush out the mud when dry. Give an occasional diuretic ball.

LEGS SWOLLEN FROM INFLAMMATION OF THE LYMPHATICS (Lymphangitis).

Treatment.—The hind legs are much oftener affected, though the fore legs sometimes suffer. A horse may be left at night with his legs in normal condition and in the morning one (or it may be both) of his hind legs are found to be enormously enlarged, the skin tight and shining hot and extremely tender; he cannot bear to have the leg touched, and sometimes to avoid one doing so, he lifts it, and falls, or nearly falls, over. It is a sudden

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and intense inflammation of the absorbents ; he is off his feed, there is fever, a quickened pulse and the mouth is hot. Both old and young horses are liable to this affection. A dose of physic, consisting of five drachms of Barbadoes Aloes, should be given, followed, after twelve hours, by a draught consisting of two ounces of Spirits of Turpentine in half a pint of linseed oil. The draught may be repeated every day for three days, and afterwards at longer intervals—say of three days—if considered necessary. The leg should be constantly fomented with water as hot as the horse can comfortably bear it (see hot water, p. 12). The leg should be rubbed dry, and then gently rubbed with Elliman's.

As soon as the tenderness has gone off and an indentation or depression can be made by the pressure of the thumb, or as it is commonly said, as soon as the leg begins to pit, it should be kept bandaged with a woollen bandage. When sufficiently recovered, the horse should be very gradually put to work.

SWELLED LEGS FROM DEBILITY.

Treatment.—Horses' legs very often fill or swell from debility, in which case the object must be to increase the strength of the system generally. A liberal allowance of oats should be given with bran, or the bran may be given as a mash twice a week. Carrots may be given with advantage. The horse should be fed regularly ; he should have gentle and regular exercise, his legs should be well hand-rubbed and then sponged with Elliman's, and dry bandaged while in the stable.

DISEASES OF THE FEET.

Contracted Feet.—Many a horse is reduced in value by contracted feet. They may not cause him to go lame, but experience proves that he is more likely to do so than a horse with a large open foot.

Treatment.—A foot can be made to grow larger, even in an old horse, if the band round the top is stimulated from time to time with the Elliman's.

The foot grows from the coronary band just as the human nail

does from the quick, and anything that stimulates the coronary band causes an increased growth. Rub on the Elliman's three times a week.

WEAK CORONETS.

Colts that have been starved or stunted by intestinal worms may grow up with weak, thin coronets, which seem almost to show the edge of the horn instead of a full round ring.

Treatment.—Rub the Elliman's all round the coronets twice or three times a week.

The enlargement which Elliman's can bring about in the horse's foot may be ascertained by measuring the impress of the foot before the treatment and after the horn has grown down.

Prevention consists in liberal feeding and plenty of exercise when quite young.

SIDE-BONES.

The term "side-bone" is given to a conversion of the lateral cartilages into bone, which, instead of being flexible under the pressure, is found to be hard and unyielding.

The cause is concussion on hard ground, and it is most common to heavy horses.

It is largely hereditary.



OSSIFICATION OF THE LATERAL CARTILAGES.

1. Pedal bone.

3. 3. The lateral cartilages ossified.

Treatment.—Elliman's should be well rubbed on and around the part every day until it is too sore to be continued, when it must be left alone until the scurf raised is removed, and the soreness has subsided, when the rubbing as before may be repeated if necessary.

If the leg swells, apply the cold water treatment as for RINGBONE (p. 64).

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SAND CRACK.

This is due to the imperfect secretion of horn. In a sound foot there is a perfect blending of gelatinous and hard material, but where the gelatinous is wanting, sand-crack is liable to follow. A common cause is due to the farrier rasping the wall of the foot after shoeing, thus removing the gelatinous layers, and so producing evaporation and dryness which eventually cracks.

On the inside of the fore foot and at the toe of the hind, is where it most often occurs.

Treatment.—Remove the shoe and cut an inversed Λ where the crack touches the sole or ground surface. At the top of the crack, that is to say, immediately below the coronet, make a true V with a firing iron, the crack running down through the centre or bisecting the Λ .

This mechanical arrangement distributes the concussion over the sound parts while resting the injured. The Elliman's should be rubbed into the coronet all the way round, so as to promote a sound growth of fresh horn. The crack will grow out, unless the coronary band has been severed by a wound. Then a mark of union will be left, but the animal may become sound in going and remain so.

THRUSH

is a disease of the frog, brought about by standing in wet and dirty stables. It is sometimes hereditary.

Bad shoeing has also something to do with it. The heel being always lifted off the ground, the frog gets no fair share of pressure, and wasting is the result. The discharge from the cleft of the frog is very offensive.

Treatment.—Pare away all the dead horn and wash out all evil-smelling matter. Mix one part of salt with four or five parts of tar, and pour into the decayed part, particularly into the cleft.

A pledget of tow dipped into the compound and pressed into the cleft and left there, is good treatment.

In severe cases of long standing, get four drachms of finely powdered sulphate of copper, and mix it with four ounces of Stockholm Tar; have the thrush cleaned with warm water and soap, and when dry, having stirred into ointment, introduce some into the cleft of the frog and press it in with a piece of soft tow. Dress the frog every or every other day.

BRITTLE HOOF.

Some horses are very seriously inconvenienced by this—in most cases a natural defect. They are most affected when the weather is hot and dry. The shoeing smith (owing to the hoofs having broken away) has often great difficulty in obtaining nail hold, and lameness frequently results from the nails being driven too close to the sensitive part of the foot. The pliancy and toughness of the horn can be greatly restored or increased by brushing into the crust ointment of sulphate of copper and vaseline, one part of the former to eight parts of the latter.

A little Elliman's should be rubbed round the coronet every other day to promote the growth of horn.

SEEDY TOE.

It is a diseased mealy formation of horn, destroying the union of the outer wall with the laminæ, and causing a vacant space between them, a hollowness which can be detected by percussion from the sound produced. Seedy toe is generally the result of laminitis, but sometimes from pressure of the clip of the shoe. The treatment consists in the rasping away of the horn and the careful removal of every particle of the mealy horn; in order to do this it is sometimes necessary to remove so much of the hoof that the shoeing smith is unable to get a nail to hold sufficiently to fasten on the shoe, in which case he must wait for the growing down of the horn to enable him to do so.

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The horse should be put on moss litter, as his foot or feet will then be very sore, and that will be soft for them, the hoof kept wet with a swab, and Elliman's should, every or every other day, be rubbed round the coronet to stimulate and promote the growth of hoof.

CLICKING OR FORGING.

A very objectionable noise, caused by the hitting of the hind shoe against the fore. Young animals are most liable to click, but as they acquire strength, and if they are judiciously driven, they often discontinue to click. A clever shoeing smith can, in many cases, to a great extent prevent a horse from clicking.

SORE THROAT.

There are many causes of sore throat.

Chills, influenza, bad drains, sea voyages, irritant foods and drugs, accidental swallowing of things the "wrong way," strangles, etc.

Symptoms of sore throat:—Shivering and staring coat, quidding the food, poking out the nose, nodding the head continuously, cough, restlessness, loss of appetite.

Treatment.—Clothe the body, bandage the legs, apply the Elliman's with a sponge, and then well rub it in with the hand both sides of the throat and down the windpipe, and lastly put on a hood; repeat daily.

The rest of the treatment must be guided by the special cause, if determinable. The horse owner will be doing right in applying Elliman's at first, but the aid of a veterinary surgeon may be necessary in severe cases, both for local and general treatment. The cough mixture upon p. 95 of the complete E.F.A. Book may be given with advantage.

ROARING.

Causes.—Influenza, sore throat, cough, neglected cold, hereditary predisposition. The various degrees of this affection are described as:—whistling, thick wind, and roaring, but the causes are very much the same, only that thick wind is more frequently the sequel of bronchitis.

Read offer facing inside cover, page 1.

It is not too much to say for Elliman's that roaring may be prevented by its timely use.

Trainers of racing stock attach the greatest importance to the least sign of catarrh, as evidenced by sore throat or cough.

Treatment.—The same as for sore throat. A tube, introduced into the windpipe, may be necessary.

COUGH.

A noise made in the effort to expel some foreign matter, or some secreted matter in the air passages, causing irritation.

If the irritation exists in the fauces or the larynx, the throat from ear to ear should be well rubbed every day with Elliman's, and the rubbing should be continued down the windpipe until the parts become sore—the horse should be fed on green meat if it can be obtained; if it cannot, then upon crushed oats, bran, and a little chaff scalded together; pour boiling water upon the food, then cover over for a time and give a fair feed of the mixture, when cool, four times a day; carrots should be given, but little, if any, dry food. The legs should be kept warm with woollen bandages; the horse should be well clothed, and kept in a *well-aired* loose box. Draught should be avoided.

Small doses of digitalis, tartar emetic, and nitrate of potash made into a ball with tar, and one given every night, have often produced a very beneficial effect. The proportions should be $\frac{1}{2}$ drachm digitalis—1 drachm tartar emetic—2 drachms nitrate of potash. Linseed tea should be given as a drink. An excellent prescription is to be found upon p. 95 of the complete E.F.A. Book—cough mixture.

CHRONIC COUGH

may proceed from worms; there is much sympathy between the bowels and lungs; in such case the treatment at p. 48 is recommended; it may proceed from distended stomach pressing upon lungs that have become enlarged from loss of contractile power—in such a case judicious feeding would

Read over facing inside cover, page 1.

greatly help. All food should be damped, he should be given a little at a time, though oftener than he would be usually fed—his drinking water should always be within reach.

COMMON COLD.

A horse affected with cold has almost always a sore throat, more or less, besides which the glands of the throat and those under the jaw are swollen, tender and disordered, even if there is no apparent enlargement to the eye.

The importance of early treatment has been already alluded to in connection with roaring.

Treatment.—Clothe the body well, but give fresh air, avoid draught. Apply the Elliman's vigorously to the throat and under the jaw, as previously directed. By this means the effusion is diverted from the delicate membrane of the air passage to the loose tissue under the skin, and nature is able to absorb it.

Steaming the head by means of scalded bran in a nose-bag is helpful. Care should be taken not to make it too hot, or, as a horse's muzzle is easily injured, it would have additional trouble in eating.

The food should be moistened, and all dusty or damaged hay avoided when the horse has recovered.

STRANGLES.

Most young horses at some time or other suffer from strangles, which develops a tumour in the channel between, or at the side of, the jaws. The horse at first appears dull, off his feed, has a husky cough, has a discharge from the nostrils, sometimes also from the mouth, and a weeping from the eyes; he is said to be sickening for strangles. As the disease progresses, thickening between the jaws appears, and the formation of the tumour is observed. The cough at this stage causes breathing to be difficult, and swallowing becomes painful, hence the name of "Strangles."

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Treatment.—Foment the swelling for half an hour with hot water twice a day, then Elliman's should be gently rubbed, with a piece of sponge, into the tumour every night and morning, to bring about a speedy suppuration. As soon as the tumour becomes soft, and the fluid can be fairly detected, it should be *freely lanced*. The abscess must mature properly before being lanced. See "Abscess," p. 28. Subsequently, the treatment will consist in keeping it clean, and in dabbing it with Elliman's, on a sponge, daily. The feeding of a horse, while suffering from strangles, should consist of bran mash with crushed oats, green meat, and carrots if they can be obtained. A bucket of linseed gruel should be within his reach.

Strangles is an infectious disease, and all horses so infected should be isolated, and when the horse has recovered, the stable and utensils should be carefully disinfected. See p. 89 of the complete E.F.A. Book.

CONGESTION OF THE LUNGS.

There is a great distinction between congestion and inflammation of the lungs of horses, not made in regard to man.

Congestion is engorgement, and the cause, as a rule, over-exertion when out of condition. It is, therefore, most frequent among hunters at the beginning of the season and after a big burst across country.

A horseman should recognise the early signs, and first turn his hunter's head to the wind and then to the nearest way home.

Treatment.—At the first signs of blowing and distress, with dilated nostrils and heaving flanks, it is well to give a rapidly diffusible stimulant. A gill of brandy at the nearest inn, or a draught of ammonia (aromatic spirit), an ounce in half-a-pint of cold water, at the first chemist's at which it is obtainable should be administered.

As taking a distressed horse home may prove fatal, it is well to put him up as soon as a suitable place can be found.

While a messenger is dispatched for a veterinary surgeon, the attendants should apply the Elliman's to the throat and both sides of the chest, rubbing it into the ribs for ten or fifteen minutes.

Elliman's, in the palm of the hands, should be employed in vigorously rubbing the legs until they respond by becoming warm. It is desirable to clothe the horse well, not forgetting the hood, but his head must not be poked into a corner where the air of the stable is bad; and failing a large, loose and well-ventilated box, he should be tied up facing an open door, fresh air being essential to his recovery.

INFLAMMATION OF THE LUNGS.

This is not sudden engorgement, as in the congestion above described, but of slower development. All the lung substance may be involved, or one side only.

Professional assistance should be obtained and, while waiting, the Elliman's may be rubbed into the sides of the chest and legs as recommended in congestion of the lungs. Warm clothing, a good bed, and pure air are necessary, and careful dieting on soft food.

BRONCHITIS.

The amateur has usually less difficulty in diagnosing this form of chest affection than the others, as the horse makes a noise in breathing and coughs in a way that shows pain in the act. The causes are the same as inflammation of the lungs and common cold.

Treatment.—Rub in the Elliman's from the throat to the breast all the way down the windpipe, and again behind the

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elbows along the ribs. If professional aid cannot be summoned, the cough mixture given upon p. 95 of the complete E.F.A. book may be tried, a dose being given every four hours, or one ounce of aromatic spirit of ammonia (sal volatile) in half a pint of cold water. The dose to be given every eight hours until relief is obtained.

This will be found a good remedy in any of the diseases of the chest, but we always advise calling in the services of a veterinary surgeon in all serious cases, and in giving advice upon others we do not in any way seek to supplant professional skill.

BROKEN WIND

is the result of injudicious feeding; when horses are fed on coarse, bulky food, the stomach becomes distended and presses upon the lungs; irritation is caused; enlargement and loss of contractile power follows, and the respiration is impeded.

Broken wind is distinguished by a short, dry, husky cough, and by the tucking up of the abdominal muscles, in the act of respiration. A broken winded horse cannot be cured, but much can be done to relieve him. He should be fed on nutritious food occupying little space in the stomach, a liberal allowance of oats with hay, chaff, and bran, damped together; carrots may be given with advantage. He should be put on moss litter, that he may not have the chance of eating his bed, and he should always have water within reach.

PLEURISY.

Cause.—Exposure, sudden changes, as from the warm stable to standing at a draughty street corner. Farmers' horses get it while standing after sweating at ploughing (while men go under shelter to dinner).

Shivering, grunting with pain on being turned round, rapid breathing, and a dry, hacking cough are the common symptoms.

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Treatment.—The outside of the pleura being near the chest wall is the part most often affected, and Elliman's promptly applied is almost a specific. It draws out the inflammation before it has time to form bands of lymph, which afterwards have the effect of fixing the membrane to the sides of the chest for life. A veterinary surgeon should be called in.

COLIC AND INFLAMMATION OF THE BOWELS.

Colic, gripes, or fret, as the disease is variously called in different districts, is caused by indigestion, unsuitable food, exhaustion, and drinking cold water on a full stomach, and occasionally on an empty one.

There are two sorts of colic, one known as spasmodic and the other distinguished as flatulent. In the former the bowel is constricted at places, and great pain is the result. It is a spasm of the muscular layer of the gut. Flatulent colic is slower, as a rule, in coming on. With the increase of gas in the bowels the pain increases and the animal is much distended, the sides feeling like a drum. There is always danger in colic, and professional assistance should be called in.

Treatment.—While waiting for a veterinary surgeon, rub Elliman's into the belly all over it from the last rib to the hip. Avoid the teats of a mare and the sheath of a gelding.

A good colic draught is the following :—

Spirit of Turpentine	...	...	...	2 ounces.
Sweet Spirit of Nitre	...	...	...	1 ounce.
Tincture of Opium	...	...	...	1 ounce.

To be given with half a pint of warm water.

Or . . . give

Sal Volatile	...	...	...	...	1 ounce.
Spirit of Nitre	...	...	...	...	1 ounce.
Powdered Capsicums	...	...	...	...	1 drachm.
Turpentine	...	...	...	...	2 ounces.
Linseed Oil	...	...	...	...	½ pint.

Mix and give in a pint of gruel.

Prevention.—*With the exception of a few hereditary cases, colic is practically preventable. Mismanagement is responsible. Bad food, irregular meals, and working the horse when in an exhausted state, are causes of colic.*

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CONGESTION OF THE LIVER.

Horses habitually fed on corn and never turned out to grass are subject to liver disorders. Influenza is among the most frequent causes of congestion of that organ. Errors of diet and bad air contribute their quota as well. Impaired appetite and yellow membranes of the eye and mouth are pretty sure signs.

Treatment—Complete change of diet, a dose of aloes, or a daily dose of three ounces of Epsom salts, administered in a mash, or in the drinking water, for three or four days, and daily application of the Elliman's to the right side, beginning at the last rib and going backwards for two hands' breadth. Blisters are not desirable, but a continuance of the Elliman's will so act upon the superficial nerves as to react on those nerves which direct the functions of the liver.

CHILLED LOINS.

Clipped horses exposed to the wind are apt to get a chill across the loins. It is made manifest by such stiffness next day that the victim gets up with difficulty and turns with a groan.

Elliman's is the proper remedy for this condition. Its operation will be helped by first bathing the affected parts with warm water (see FOMENTATION, p. 12). The great muscles of the back are subject to deposition of effete material, which produces a sudden form of paralysis known as azoturia. It comes on very soon after a horse has started on a journey. The treatment consists in giving a bold dose of physic and rubbing in the Elliman's over the loins daily.

MEGRIMS.

This may arise from determination of blood to the head, causing pressure on the brain. The horse may not have been doing much work, has got too fat, made too much blood; may have been driven too far or fast in an oppressive atmosphere; the collar may have been too tight—he will suddenly stop, shake his head, tremble, be giddy; he may altogether lose consciousness, and fall. After about five minutes, he will

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gradually recover, he will appear dull and more or less exhausted. He should be led or driven home as quietly and gently as possible; a dose of physic containing four or five drachms of Barbadoes aloes should be given; he should have bran mashes. After the direct effect of the physic has passed off, alteratives may be given with advantage (see recipe for alterative powders, p. 96 of the complete E.F.A. book). The allowance of corn and hay given previous to the attack should be reduced.

A horse that has had more than two attacks of megrims is very unsafe to drive.

WORMS IN HORSES.

Those from which horses mostly suffer are the long white worm (*lubricus teres*), and the small darker-coloured worm (*ascaris*), often called needle worm. The former are from six to ten inches long, and inhabit the small intestines, and when they exist in any quantity they materially interfere with the condition of the horse, as they feed on the nutritive part of the food, or mucus of the intestines. The best treatment appears to be to give, according to the size of the horse, from one to two drachms of tartar emetic, mixed in a little damp food, every day for six days, an hour before the horse is fed, then to mash him for a day, and, having so done, to give a dose of physic, say five drachms Barbadoes aloes, or, fast the horse for twelve hours, then give a draught composed of one pint of linseed oil with two ounces of turpentine added. Mix.

The smaller worm (*ascaris*) inhabits the larger intestines, the cœcum and rectum, where they are often found in large quantities. They are a great annoyance from causing much irritation about the fundament. A dose of physic will bring away a great number. If they exist in the rectum, an injection of linseed oil, or of an ounce of aloes dissolved in warm water, is the most effectual remedy.

CATTLE. DOGS. BIRDS.

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CATTLE.



FOMENTATION.

WHEN warm bathing is advised, it should be understood that warm and not scalding hot water is intended.

Inexperienced persons are very apt to use water much too hot, and so cause needless pain and loss of cuticle. The hand of a person engaged in manual labour is hard and comparatively insensitive, and is no test as to the heat which the skin of an animal can bear. The naked elbow should be placed in the hot water, or in the poultice intended for application to a cow's heel.

SPRAINS IN CATTLE.

The chief sprains which call for attention are those of the hip, stifle, hock, fetlock, and pastern.

The prominent symptom of lameness arrests the attention of the stockowner, and his interests will be served by a careful examination to discover the exact part affected. The patient should, if possible, be given a box to himself, as all practical cattlemen know how other beasts will "put upon" a lame member or one that is sick. If a severe sprain, it will be as well to give a cooling dose of, say, a pound of Epsom salts to keep down irritative fever. Then the Elliman's should be well rubbed into the part affected for ten minutes a day, continuing the application to the point of outside soreness. If the beast is not then quite cured, a day or two may be allowed to

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intervene, when the Elliman's may again be used until no symptom of lameness remains.

CRAMP.

Cramp in cattle is generally the result of lying on hard stone or cobble floors with insufficient bedding, and the cure is in the hands of the attendant if he is allowed as much litter as is required. Damp situations engender cramp, in a form which cannot at first be distinguished from rheumatism.

The parts most affected are those in which the greatest amount of fibrous tissue exists, or else the tendinous portions of muscle.

The great muscles of the back which make the sirloin when on the table are prone to be thus affected, and beasts will sometimes remain upon the ground for days, or even weeks, "refusing" to get up as it is said, but the real fact of the matter is that it hurts them too much to make the effort when called upon to do so; they have probably already tried, unobserved and before anything was found to be the matter. The loin muscles are essential to rising from the ground, and it is cruel and useless worrying a bullock into getting up. This certainly does in a few cases of irresolution have the effect desired, but, taken as a rule, if a beast does not rise and follow the herd, it is not for want of will, but for want of power. The joints, tendons of the leg, and attachment of muscles are subject to cramp of a lasting character; but there is also a purely muscular cramp, such as is not unknown to human beings when bathing in cold water. The latter is easily enough cured with an application of Elliman's, but the more chronic forms need a daily rubbing over the affected parts, which will usually be found hard and at the same time tender.

LUMBAGO.

This is a form of rheumatism, and requires no other treatment than Elliman's.

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RHEUMATISM.

It has already been said that cramp and rheumatism very much resemble one another, but there is this difference, that—while the former can be immediately cured—the latter will require more time and a diligent use of the specific known as Elliman's.

There is often much pain with rheumatism, especially when affecting joints; the animal "blows" and perhaps refuses his food.

The affected parts swell, and are hot, and extremely tender when manipulated. There is, too, a peculiarity about rheumatic lameness, namely, that its sudden disappearance from one limb or joint precedes its appearance in another. A hind leg may be the seat of lameness one day and the fore leg the next, or *vice-versâ*.

There is scarcely any part of a beast which can be said to have immunity from an attack of rheumatism; but the loins, hips, hocks, knees and pasterns are the most common seats of the disease.

Treatment.—Elliman's is a good remedy. There is no need to wait for the exact nature of the complaint to declare itself, whether cramp, acute rheumatism or sprain, as either may be the cause of lameness, and the Elliman's is the thing to use. It excites the effused fluid to absorption in the case of sprain, distributes the nervous energy which for a time is concentrated in a muscle in a state of cramp, and removes the rheumatic poison, neutralising that as it does the sting of a wasp or bee.

In simple cases of recent rheumatic affection, a few applications will suffice to restore the animal to soundness, but with oldstanding trouble the affected parts should be first bathed with hot water to make the Elliman's more rapidly penetrate. The rubbing should be long continued and

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repeated. Give from two to four drachm doses of salicylate of soda in milk or water, one pint once or twice a day for some days.

WOUNDS.

While the treatment of wounds depends somewhat on their extent and situation, there are certain general rules to be observed, which are more or less applicable to all cases.

To render them aseptic is the surgeon's first care, and this may be done by the cattle owner himself, if he is in possession of a bottle of Elliman's Embrocation. It mixes freely with water and should, for this purpose, be diluted to the extent of one half and applied with a soft sponge, when it forms a suitable lotion or preliminary dressing as well as a styptic to stop more or less bleeding. The next consideration is to get the edges of a wound in apposition, in order that nature may unite them in the most economical way. By this expression we mean what the old school of surgeons still call first-intention, or adhesive union. Many simple or incised wounds, as distinguished from torn, lacerated, or punctured ones, will unite as though stuck by glue, if promptly brought together and rendered aseptic by the Elliman's properly diluted. Wounds too large to unite without some mechanical means of retaining the edges in apposition may be secured in a variety of ways.

Probably, for the cattle-man, we may most recommend the plan of pins, and figure-of-eight bandaging. Suitable pins may be purchased, or made, by filing stout pins on three sides to make a bayonet-shaped end or point. These should be boldly pushed through the sound skin, taking plenty of hold to avoid their tearing out. Two or a strand or two of untwisted string can then be wound round in the form of the figure-of-eight. This method is the least likely to allow the wound to gape open; it has the recommendation of permitting

the amateur to renew his bandage without having to introduce fresh sutures. The swelling can be relieved without withdrawal of the pins, and the whole apparatus be rendered free from germs by the application of the dilute Elliman's all over the dressings, in the proportion before recommended.

Ragged or contused wounds tempt the amateur to cut off what appears to him superfluous skin or flesh, but the experienced surgeon will save all the living material possible, only excising the hopeless portion when he is convinced that nature cannot make use of it in repairing the breach.

The same directions as to bringing the edges of a wound together apply to this class also ; but it is even more important to use an antiseptic dressing, as we cannot expect contused wounds to heal by simple adhesion, and the longer exposure to atmospheric germs makes it the more desirable to keep the open sore dressed with an efficient germicide such as Elliman's.

The discharge of a thin straw-coloured fluid is not a healthy sign, and should such symptoms appear, a dressing of undiluted Elliman's should be employed, pressing it within the wound or plugging it with a piece of tow, and repeating the performance until thick yellow matter denotes a healthy granulation going on within.

Excessive swelling in the neighbourhood of a wound may be an untoward sign and should be disposed of by counter-irritation, brought about by the undiluted Elliman's being applied liberally for several inches around the actual wound.

Punctured wounds call for remark here, as they are too often regarded lightly, because they are small. A great gaping wound is often less to be feared than one made by the point of a horn or the prick of a nail. Such wounds have an unpleasant way of apparently healing up while mischief is going on within. A fistula may be forming, such as causes poll evil in horses and is known to most horsemen. A

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punctured wound should not be allowed to heal up as it will, but be slightly enlarged to give vent to the matter which usually forms. A plug of tow-end should be dipped in neat Elliman's, and forcibly pushed up as far as it will go; this will ensure a proper discharge, and preclude the possibility of a sinus or fistula being subsequently established. It will come out in a few days, by reason of the matter which is formed. A blunt penholder or other homely probe will tell the state of the wound if it is pushed up. A bright red drop of blood on the probe indicates sound healing by granulation, while a watery fluid with granules in it like those from a stale cow's udder, shows a disposition to the formation of fistula. A neglected case may still be saved by the plugging previously recommended.

ABSCESS.

CATTLE are subject to two forms of abscess, the one containing a straw-coloured fluid called serum, and the other manifesting the nature of a boil, the matter in which is thick (pus).

Cause.—Blows and other forms of violence, thorns, gores, etc.

Treatment.—Foment with warm water and rub in Elliman's Embrocation every day. If this is done when the swelling first appears, dispersal of the contents may be expected.

When matter is formed, the proper treatment is to induce "pointing" by fomentation, and by continued use of the Elliman's until a soft place can be felt. At this point a lancet should be boldly plunged in and the contents squeezed out. Dip a little tow in the Elliman's and push it into the wound. This will work a change in a short time, leaving a perfectly healthy wound, free from infective matter. Nothing more need be done unless in very hot weather, when the parts should be smeared with tar to keep off flies. Some abscesses

refuse to point, when it is necessary to introduce a seton dressed with Elliman's. The needle should be inserted at the highest point and brought out at the lowest to ensure drainage.

CATARRH, OR COMMON COLD.

Causes.—Sudden changes of temperature and impure air, as that in auction byres and aboard ship.

Treatment.—Good nursing is of importance, as common colds have a knack of becoming malignant if neglected. Plenty of linseed gruel and Elliman's applied to the throat. Holding the animal's head over a pail of boiling water, to which a table-spoonful of turpentine has been added, gives relief.

LARYNGITIS, SORE THROAT.

Inflammation of the lining membrane of the larynx.

Cause.—Exposure to the east wind and sudden climatic changes.

Treatment.—Repeated applications of Elliman's to the outside, and good nursing. Sedatives are often prescribed, but the Elliman's will do all that is required in assisting nature to throw off the disease.

BRONCHITIS.

Causes.—Hardships and exposure, or the coddling of cattle and subsequent sudden changes from the heated stable to the chill winds of spring. The presence of small parasites (*filaria bronchialis*).

Treatment.—A vigorous application of the Elliman's from the top of the throat to the brisket and behind the elbows. For internal medicine, give drachm doses of emetic-tartar night and morning, and plenty of linseed mashes. The sick box should not be too warm; pure air is of importance. This is a dangerous and insidious disease, and we advise that a veterinary surgeon be at once consulted.

Read offer facing inside cover, page 1.

TREATMENT FOR SORE MOUTHS IN SHEEP AND LAMBS, SORE UDDERS, AND FLY GALLS.

Cleanse the parts and apply the Elliman's, diluted one to ten parts of water. *See Useful Antiseptics, page 3 of cover.*

TREATMENT FOR FOOT ROT.

Pare the feet well down, clean them thoroughly, and dress twice daily with the Elliman's, by means of a brush.



DOGS.

SPRAINS.

THE loins of racing dogs, as the whippets and those of the greyhound and others used for coursing, are not infrequently put to such severe strain that injuries to the muscles and tendinous attachments follow. The thigh muscles and those of the shoulder and breast are most often the seat of sprain.

The dog does not give us the same trouble in diagnosing his lameness as some less sensitive and less sensible animals; he looks for sympathy, and often holds out the injured member, or cries when the part is touched. When lifted by his forelegs, a sprain anywhere in front will be soon detected by his behaviour.

If any doubt exists, the owner need only feel over the suspected parts, and the exact seat of the trouble will be made manifest by the dog.

Treatment.—Bathe with warm water, and rub in gently the Elliman's, repeating the operation at least once a day. Dogs are particularly susceptible to the remedy, and it never fails if judiciously employed.

If there is a rheumatic tendency in the animal, it should have no meat for a few days, but a diet should be given consisting chiefly of fresh fish, milk and farinaceous foods. Cooked greens, chopped up with a little gravy, will succeed in many cases where the dog would otherwise refuse to eat any food that is not "meaty" or to his taste.

Read offer facing inside cover, page 1.

CUTS AND WOUNDS.

Foment the wound until clean with tepid water, containing about half an ounce of Elliman's to half a pint of water. After fomenting, apply a piece of lint or cotton wool, soaked in Elliman's, diluted one part Elliman's and ten of pure cold water, to the wound, and keep the lint in its place with a soft bandage where possible.

BRUISES.

Treatment.—As soon as the injury is discovered, bathe with warm water and rub gently in the Elliman's. Repeat next day and in all probability it will be cured.

THORNS.

Sporting dogs in particular are liable to get thorns in the feet and legs. Even the lady's pet, taking his constitutional, may get one when hedge-trimming is the order of the day. Pins, needles, bearded oats, and grass seeds insinuate themselves between the toes, and have been known to work up the leg and come out at all sorts of places.

Treatment.—Find the foreign body before the part has time to fester. The hair being clipped round the suspected spot will facilitate the search. A pair of fine forceps or tweezers may serve for seizing the offending body and withdrawing it.

Foment with warm water, and dab the wound with Elliman's.

CRAMP.

This term is applied to several diseases of dogs, and in some districts means colic, and in others rheumatism.

Cramp, as we mean it, is contraction of muscles and temporary loss of power over the voluntary movements.

Causes.—Cold and exposure are the most common. Water dogs are the most frequent victims.

Treatment.—Elliman's is an absolute cure for it. Nothing but a brisk rubbing with it is necessary.

Read over facing inside cover, page 1.

RHEUMATISM.

Dogs, more than any other domesticated animals, suffer from this painful disease. When affecting the muscles of the chest and fore arm, it is well known as "kennel lameness," or "chest founder." At another time it resembles lumbago in the human subject, while a limb or the whole body may be so affected as to render the dog unable to move.

Causes.—Cold, wet, exposure to draughts; and dietetic errors in the case of lap-dogs.

Treatment.—Where there is a high temperature, the dog should have salicylate of soda given him, in doses of from ten to fifteen grains. Such dose may be given every four hours, after which we may depend on the Elliman's to complete the cure. It should be gently rubbed into the parts affected. The dog should be given a warm comfortable kennel indoors, and should be put on a fresh fish and milk diet.

BITES.

These are in the nature of punctured wounds, and in other animals should be enlarged, but with dogs it is seldom necessary. The application of Elliman's, diluted 1 in 10 of water, to the wound, and a good rubbing all round about the place, will, with very few exceptions, result in a speedy cure. If it does not do so, an abscess may be looked for.

COUGH.

There are so many causes of cough that one remedy cannot be named that is suitable for all, except for outward application, and that remedy is Elliman's Embrocation.

Cough is a symptom of disease rather than a distinct disease. The irritation which makes an animal cough may be far from the place (larynx) where the tickling sensation is felt, but a counter-irritation over this region generally gives relief. Mustard and other remedies, good in themselves,

Read offer facing inside cover, page 1.

have the great objection that they cannot be repeated if strong enough to have any real value. Elliman's, while active in drawing out inflammation, does not leave the skin in a condition to take on erysipelas.

A good internal medicine for coughs is syrup of squills, in ten to fifteen drop doses, in water. (See *Bronchitis*.)

CATARRH OR COLD (COUGH).

Just in proportion as dogs are pampered and kept from the effects of exposure to the weather, do they become unable to bear weather changes. Hence we find the lady's lap-dog the frequent subject of catarrh, and the poor watch-dog, kennelled outdoors, the least often affected.

The causes then may be said to be sudden and great changes of temperature, getting wet, etc.

Treatment.—A warm, dry bed. Nourishing food. A good rubbing with Elliman's under the throat and along the chest walls until the animal is in a glow of warmth.

If the matter from the nose dries about the nostrils it may be sponged off, and the parts anointed with a little vaseline.

Not much in the way of medicine is desirable in common cold. The thing to do is to keep the dog under suitable hygienic conditions and he will get well, unless the disease has been mistaken, and distemper is invading his system.

If the eyes are much affected, a lotion of boracic acid will be helpful, or a weak, tepid solution of tea.

BRONCHITIS.

Causes.—Cold and exposure; over-feeding and old age.

That produced from the first two named causes is of the acute kind and more amenable to treatment than the chronic, which is the result of degenerative changes in the heart and lungs.

Treatment.—Rub in the Elliman's from the throat to the breast, and again behind the elbows as far as the ribs, extend the rubbing in a backward direction and repeat next day.

For internal medicine, give a mixture of chlorodyne, lemon juice, and glycerine, in the proportion of one to three drops of the first and ten of the second in a drachm of the last. This may be given twice or three times a day.

Prevention.—Sporting dogs should not be put up into a dog-cart while wet, but made to follow a little way, the pace being suited to tired animals. They soon get dry on the road, and may be better for some wisping as well. It is not getting *wet*, it is the manner of getting *dry*, that does the mischief.

The chronic subject must have less food, and in small bulk, never being allowed to fill himself to repletion.

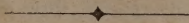
KENNEL DRESSING.

For hounds and for other dogs. For cleansing and promoting a healthy action of the skin, and for the destruction of vermin:—

Sweet Oil	1 pint.
Elliman's Embrocation	4 ounces.
Sufficient Flowers of Sulphur.	

to be gradually stirred in until the mixture becomes of the consistency of thick cream.

The dressing to be rubbed in with a soft brush; it may be repeated on the second or third day.



BIRDS.



CRAMP IN POULTRY.

Cause.—Chickens, by which we include the young of fowls, turkeys, ducks, guinea-fowls and game birds, are subject to cramp, which causes the loss of a goodly number every year, as they are left to perish by their mothers when unable to follow, or when, having strayed from the coop, they cannot return. Wet or frosted grass is the most frequent cause of cramp, and it follows that very early and very late-hatched birds are the victims.

Treatment.—The victim of cramp should be taken indoors and gently rubbed with the Elliman's over the limbs and feet, when he will soon respond to its effects, and often be well again in a short time.

Prevention.—Do not let chickens out until the dew is off the grass, or the sun high enough to keep up their temperature.

FOR CRAMP IN BIRDS.

Saturate a piece of lint with the Elliman's, and gently rub the part affected with the saturated lint.

LEG WEAKNESS IN POULTRY.

Cause.—Too much forcing. The attempt to bring birds of six months to the weight of those nearly twice their age can only be successful in a few cases.

Treatment.—Strengthen the limbs by applying the Elliman's and supply the system with the bone-forming elements in the shape of syrup of phosphates.

Continued next page.

Read offer facing inside cover, page 1.

Prevention.—Give lime water and powdered shells with the food from the first month or six weeks.

RHEUMATISM.

In damp situations, and especially among elderly show birds, this disease makes itself felt severely at times.

Treatment.—Remove the birds to a dry place, and rub in Elliman's to the swollen and painful joints.

HORSES.

SUPPLEMENT.

TREATMENT FOR BRUISES.

Bruises—the result of blows, kicks, or other injuries.

The parts affected should be fomented with warm water (not too hot), to which Elliman's should be added in the proportion of about one ounce of Elliman's to a pint of water ; for Antiseptic purposes. After fomenting, the part should be gently rubbed or massaged with a little Elliman's.

Where the skin is broken or abraded, the Elliman's diluted should only be dabbed on with a piece of lint or cotton wool after the fomentation. (See page 31.)

TREATMENT FOR RINGBONES.

Elliman's should be well rubbed on and around the part for ten minutes twice a day until a scurf is raised, when it should be discontinued. When the soreness has subsided, the operation may be repeated if necessary. *If the leg swells*, and does not promise reduction, let a stream of cold water play on the part for ten or twenty minutes, two or three times a day, until the inflammation has subsided.

FOR BLISTERING HORSES.

Foment the part with hot water for half an hour, and then apply the Elliman's with smart friction for ten to twenty minutes. Do this twice a day until a scurf is raised. This treatment will not destroy hair roots.

Read offer facing inside cover, page 1.

USEFUL ANTISEPTICS

are :—

For the Eyes and Mouth.

Boracic Acid, 4 per cent. Solution.

For Sores on the Udders of Cows in Milk.

Boracic Acid as an Ointment (1 in 10).

For external Sores and Abrasion of the Skin; Sore Udders of Cows not in milk.

Elliman's Embrocation diluted, 1 part to 10 parts of water; or Carbolic Acid, 5 per cent. Solution.

For the Disinfection of Dairy Utensils.

Boracic Acid in Solution (4 per cent., or 1 in 25).

For the Disinfection of Stables, Byres, Kennels, Harness, Stable Utensils.

Carbolic Acid, 5 per cent. to 20 per cent Solution.



Always use clean material in the treatment of external sores and abrasions of the skin.

Rubbing with Elliman's Eases Pain.

Elliman's Embrocation

is the safe and effectual medium for rubbing out "Soreness of the Limbs" after exercise.

Beneficial added to the hot or cold bath.

After walking—added to the footbath—it relieves the aching of tired feet, also it is good for—

RHEUMATISM,
LUMBAGO,
SPRAINS,
SORE THROAT
FROM COLD,
BRUISES,

COLD AT
THE CHEST,
CHRONIC
BRONCHITIS,
BACKACHE,
CRAMP,

CHAPPED
HANDS,
CHILBLAINS
(before broken),
SLIGHT CUTS,
etc.

To know how to rub, when to rub, and when not to rub is not universally known. To afford such information was the origin of the now popular

ELLIMAN R.E.P. BOOK.

*First Aid and Rubbing Eases Pain Handbook,
256 pages, cloth board covers, illustrated.*

The R.E.P. Book treats of Ailments that bring trouble in every household. Also contains First Aid Information, and instructs respecting the "Hygiene of the Athlete," and Massage.

ACHES and PAINS

that are amenable to treatment—by judicious massage—are commonly relieved by the use of Elliman's, which, applied early, often checks the development of serious illness, as in the case of ailments arising from taking cold, etc. The R.E.P. Book, 256 pages, is sent post free to all parts of the world upon the terms stated upon page 1 of the **R.E.P. Booklet** (48 pages) **which is enclosed in each carton** containing Elliman's Universal Embrocation, price 1/1½, 2/9 and 4/- per bottle (2/9 equals 3 of 1/1½; 4/- equals 5 of 1/1½).

ELLIMAN, SONS & CO., Slough, England.